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54 An apparatus for producing a granulated material from used thermoplastic material

(57) An apparatus for producing a granulated material from used thermoplastic material, such as plastics foil, and an aqueous filler material, such as sawdust. The apparatus comprises a cutting unit (1) provided with knives (9, 30) for the thermoplastics, a worm extruder unit (2) for plastifying the thermoplastic material and communicating with the cutting unit (1), as well as a granulating unit (3). The rotating knives (9) of the cutting unit (1) are arranged on a cylinder unit (8) mounted in an elongated chamber (7). The fastening spots of the knives (9) are preferably placed on at least one helical line on the surface of the cylinder unit (8). The cutting unit (1) is mounted parallel to and opposite the worm extruder unit (2) in such a manner that said worm extruder unit can emit heat to said cutting unit. The cutting unit (1) comprises at least two temperature and/or moisture sensors (15a-15g) inside the chamber (7) and in addition heat-regulating means controlled by said temperature and/or moisture sensors (15a-15g) so as to ensure a regular evaporation of the water in the filler material which is thereby dry when passing from the cutting unit (1) into the worm extruder unit (2). The worm extruder unit is provided with at least two thermostatically controlled (19a, 19b, 19c) auxiliary heat tapes (18a, 18b, 18c). In this manner a very reliable production of the granulated material is achieved without risking vapour explosions inside the worm extruder unit.

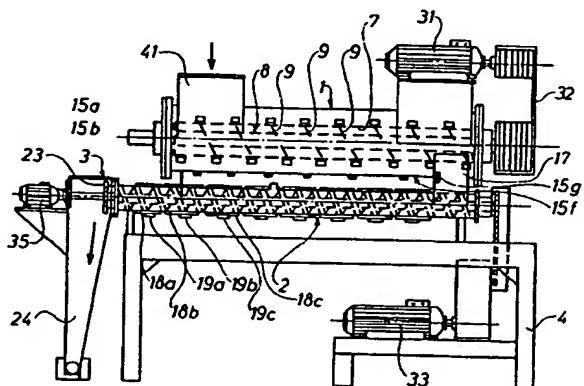


Fig. 1

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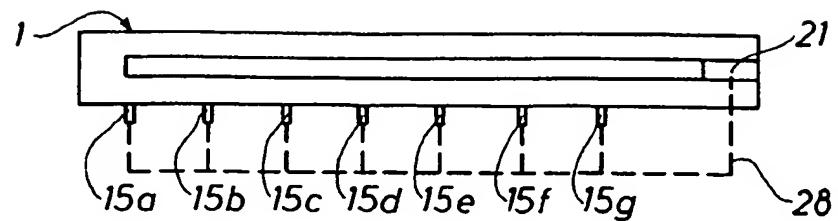


Fig. 3

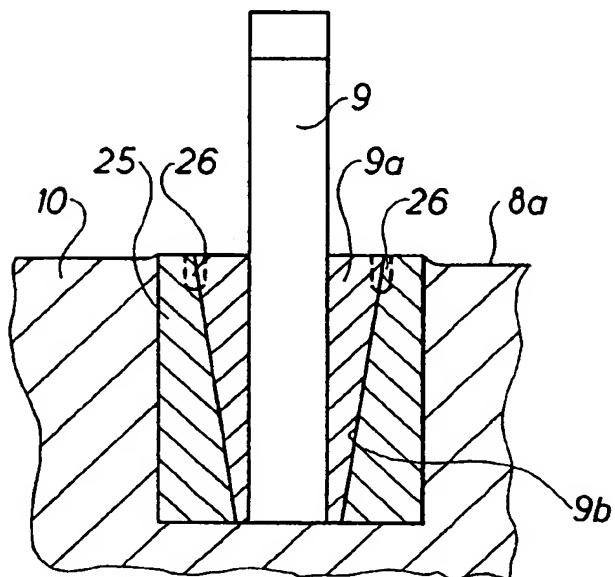


Fig. 4

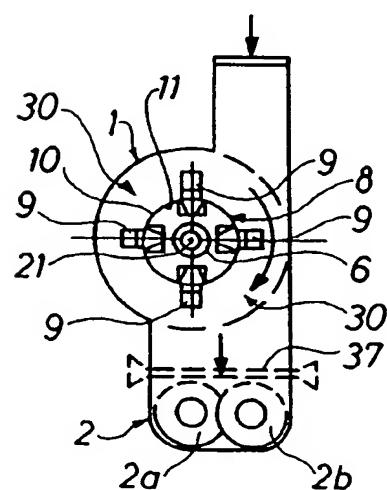


Fig. 5

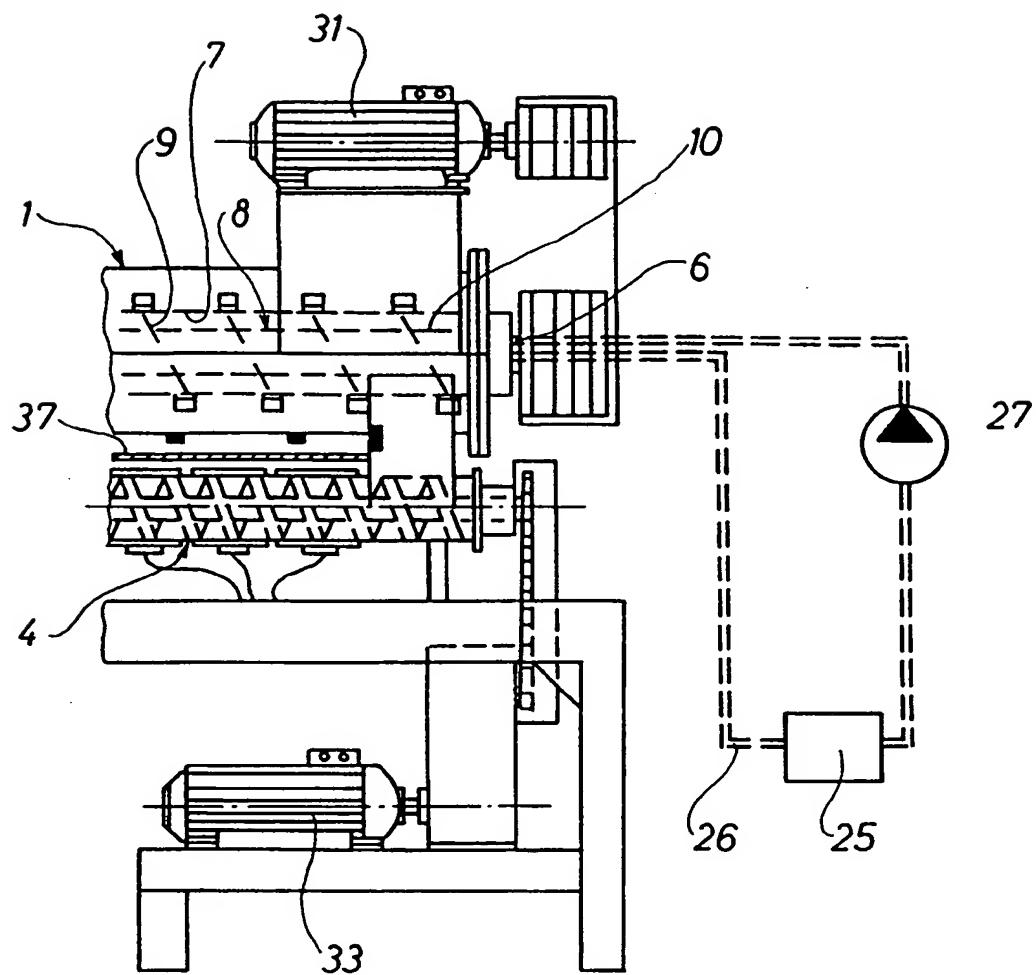


Fig. 6



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EUROPEAN SEARCH REPORT

Application Number

EP 93 61 0034

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.s)
X	EP-A-0 140 846 (FORNASERO) * page 15, paragraph 2; figures * ---	1	B29B17/00 B29C47/10 B29B9/06
A	US-A-4 968 463 (LEVASSEUR) ---	1	
A	FR-A-2 575 943 (JGC CORPORATION ET AL) * figures * ---	1	
A	GB-A-2 083 663 (VERTEC IND LTD) -----	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl.s)
			B29B B29C
<p>The present search report has been drawn up for all claims</p>			
Place of search	Date of completion of the search	Examiner	
THE HAGUE	16 SEPTEMBER 1993	PIPPING L.E.L.	
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